## Not All Ideas Are The Same: Challenging dominant discourses and re-imaging computer music research

*by Patricia Alessandrini*

At the time I am writing this, it has been just over a month since the infamous 'Google manifesto' leaked [1], so the first reactions to it are still fresh in my mind. The leaking of this 'bizarre and offensive' [2] memo served as a cruel example of workplace harassment, posing the risk of discouraging recruitment of women and other underrepresented groups in tech fields and further undermining these efforts by shifting the discourse from how to achieve equity to, literally, whether humans are even equal. Fortunately, however, the memo was poorly written and its research was transparently cherry-picked, the authors' academic credentials were falsified [3], and his links to the extreme-right were confirmed as he fell into their welcoming embrace: this was not a formidable foe, and he and his arguments were already discredited, or so it seemed in those first hours. In my own social media 'bubble', colleagues recounted their experiences

of workplace harassment, while socially and politically committed researchers and creatives such as Luke DuBois massively shared take-downs of it, including an excellent piece by Yonatan Zunger, himself a former senior Googler.

That night, I went to bed hopeful that the memo might serve as a means of bringing the problem of workplace discrimination and harassment to the fore - as unfortunate as it was that Google employees needed to experience it in order for that conversation to happen - and maybe even lead to questioning widely-held misconceptions about coding, its history and its requisite skills, just as Zunger and others were doing. 'Not all ideas are the same, and not all conversations about ideas even have basic legitimacy', Zunger wrote: surely, I thought, a society with 'innovation' and 'thinking outside the box' as watchwords would not allow itself to be trolled into ignoring the widely-known social and political causes of inequality in favour of viewing it through the tiny, bizarre, largely discredited thought-box of 19th Century evolutionary psychology.

Nevertheless, much as with 'The Case for Colonialism' [4], a text full of inaccuracies, not fulfilling academic standards for research, whose central arguments are widely rejected by experts in the field, received widespread consideration in mainstream discourse.

This dissemination of prejudice and misinformation profited cultural hegemony by shifting the discourse rightward, comfortably away from the consideration of means to achieve political and social justice, such as reparations or fundamental redistribution of institutional roles in the cases of post-colonial relations and discriminatory hiring and workplace practices respectively. This example of the formation of hegemonic discourse provides a cautionary example for our own technological field of how discourses contributing to discrimination are re-produced – consciously or unconsciously – in institutions, ultimately determining not only who performs research, but what research is performed. The careful re-consideration of discourse and rejection of received notions will provide the basis to critique insufficient strategies for achieving equality and equity in favour of a radical and intersectional approach. This will frame an attempt - central to this edition - to envision what an inclusive field might look like if computer music research were more successful in resisting dominant discourses contributing to exclusion and effecting structural change.

Within a week of the leak, David Brooks opined in the New York Times [5] that Google's CEO should resign, not because he failed to significantly implement diversity measures [6], but because he had

fired the memo's author for 'championing scientific research'. Critics were on the defensive, charged with the obligation to 'wrestle' with its content, thereby necessitating a wave of articles setting the record straight, by reaffirming the cultural causes [7], recounting women's historical place in coding [8] and the shift from female to male labour [9] parallel to gains in renumeration and status [10], and debunking the memo's pseudo-science [11]. It was arguably useful to have these social and historical points re-affirmed - although none of this was new information - but I found this last point exhausting: the memo was 'an exercise not in rational argument but in rhetorical point scoring' [12], yet mainstream discourse clamoured for engagement with it as 'science', and researchers felt compelled to answer.

As I obsessively combed through these responses, I read a de-bunking of Simon Baron-Cohen's study of newborns – widely cited for its pure, 'pre-socialisation' status by psychological evolutionists – and realised that I had already read about both the study and its debunking almost exactly seven years ago, in reviews of Cordelia Fine's Delusions of Gender [13]. To spare you this head-desk moment - which I treated myself to not once, but twice - suffice to say that the study could only have been credible if a robotic arm had held the newborn, gently cradling its

head while allowing it to incisively direct its gaze (as newborns are wont to do), and other robotic arms had been used to manipulate an object and an adult human respectively, with said adult human having no clue as to the baby's gender, and/or just rendered completely unconscious to avert any risk of attracting the newborn's attention. Furthermore, it is only relevant for anyone who thinks glancing at a dangling mobile at one day old is more or less the equivalent of a PhD; 'The Essential Difference', no matter what happens after. 'It's Science', titled an enthusiastic op-ed response to the memo, as if all scientific studies are necessarily objective and true.
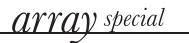
What was missing was a critical investigation of science as a subjective human endeavour, subject to institutional pressure and ideological bias, determined by political imperatives and dominant narratives: the kind of analysis provided by Fine's theories of neurosexism or Judy Wajcman's feminist critiques of technology [14]. This literature is part of larger political context: letting alt-right Google guy frame the conversation allowed transphobic, heteronormative definitions of gender as a birth-determined binary and narrow, ableist notions of innate ability to form the basis of its discourse, a set-back from both the growing acceptance of gender fluidity and increasing awareness of the failure of standardised testing to detect potential

in the absence of recognition of social factors [15]. The valuable questions raised by the memo were not scientific, but about the sociology of technological and scientific research: how did the male supremacy theories of the Men's Rights Activist movement (MRA) take root among programmers and gamers; how might neurosexism have led to a plethora of bizarre and discredited studies such as Baron-Cohen's, or others which use the placement of the urethra as an indicator of intellectual ability [16]; and how might this research be different if the relevant fields were more inclusive in terms of gender and race? These questions can be usefully applied to computer-music research as well: to what degree do ideologies of male supremacy and neurosexism influence our institutions, and how would the research we produce be transformed by achieving greater inclusivity: is there research - including practice-based – which might be more fully explored if those conducting it were not marginalised?

While we clearly have fundamental problems with white cis male hegemony, it is fair to say that the kind of MRA propaganda found in the Google memo is not given mainstream support by our institutions. I would place our discourse problem elsewhere, and to make that distinction, I will adopt by analogy categories developed by author and historian Dr Ibram Kendi in his efforts

to define patterns of racism in the US in relation to eugenics, evolutionary psychology's uncomfortable cousin. Kendi draws a distinction between 'segregationist' racism, based on eugenicist beliefs of biological inequality, and the racism of 'assimilationist' scholars, who rejected notions of biological inequality but maintained other biased views about culture and behaviour, which still placed much of the onus of societal change on Black communities [17]. Kendi defines racism 'as any idea that suggests a racial group is inferior or superior to another racial group in any way' [18], and challenges the fundamental racism of received notions: 'Black neighborhoods are not more dangerous than white neighborhoods and neither are black people' [19].

Applying this theory to the questions of gender raised by the Google memo, we can find examples of the shifting of sexist ideology from notions of biological superiority to behavioural and other bias, and challenge the received notions which are defensively recycled in order to explain the tech gender gap. The 'faux feminism' of 'Lean in' [20] culture contributes to sexist ideology, as it implies that exclusion does not exist, but rather that key roles for women are ready for the taking, if only we are 'willing'. It also validates modes of behaviour associated with male hegemony as preferable to female-assigned behavioural traits in ways

that reproduce the hierarchisation of 'innate' traits found in the Google memo, such as the devaluation of 'empathy' in the tech workplace. Another common problem in discourse on equality is the 'lack of candidates' argument, which shifts the problem of exclusion from institutions and hiring practices to women's own self-selection: there isn't much we can do, this argument claims, until we increase the numbers of women and other underrepresented groups getting a tech education, and socialisation prevents us from doing this. This is, of course, not entirely false, but its perniciousness is nonetheless apparent, as it becomes an excuse to displace institutional responsibility to achieve equality. It erases the reality of institutional hostility and exclusion by failing to acknowledge the circularity of rejection and self-selection. It is also, for the most part, patently false: in most cases, recruitment does not match the candidate base, due to unconscious bias, discriminatory practices, and/or failure to reach out to potential candidates. This is illustrated by Google's own recruitment: despite their supposed 'diversity' efforts, they disproportionally hire men relative to the number of qualified female candidates; according to statistical evidence [21], the memo's author was most likely hired in the place of a better-qualified female candidate, thanks to institutional sexism. No wonder he spent his evenings contributing to its

greater glory: as a man with questionable qualifications, his very survival in the field relies upon it.

Here we begin to touch on modes of discourse which are all too common in our field, in particular the 'We contacted someone but she couldn't come, that's why we only have white male keynotes/panelists/interviewers etc.' This phrase perfectly illustrates a framework of displacement, as institutional sexism and racism are eclipsed by the self-elimination of one person and the supposed dearth of candidates, both distant problems outside of the reach of responsibility and remedy. While simple math would indicate that members of under-represented groups in a field would need to do more of this work proportionally in order for equal representation to be achieved, the critical mass of fully calling upon under-represented members of the community is far from being reached; and even if it were, the necessary time component could be provided by a re-distribution of labour, such as a radical re-adjustment of teaching and research duties in academia to reverse the current status quo to favour the research activities of the under-represented rather than that of dominant groups. A radical re-evaluation of categories and criteria is another solution: for instance, if one holds a conference in the UK and the main criterium for a keynote speaker is a professorship, this choice reproduces - consciously

or not - the institutional racism and sexism of academia, as there are only 95 professors who identify as Black in the UK, and only 17 among them as female [22], [23]. Thus, criteria that may seem 'objective' are tainted, and adjustments must be made in recognition of this fact. Discrimination may also be re-produced by selection methodologies, such as the use of recommendation letters, a classic means of hardening institutional influence and fostering the biases and abuses - such as sexual harassment – endemic to them.

We therefore need to be vigilant in eliminating exclusionary practices which arise through the reproduction of structures of discrimination not directly in our remit. Entry fees, 'pay to play', or even free events that do not make provisions for expenses - travel, food, accommodation, childcare or personal assistant arrangements – reproduce economic inequality, which also falls along lines of gender and race. These economic disincentives are particularly discriminative against researchers and practitioners outside of academia, but they also reinforce inequalities among academics: in the UK, the academic gender pay gap stands at 12%, and would take 40 years to close at the current yearly improvement rate [25]. This latter detail is a reminder of the need for radical institutional change that does not index itself alongside incrementally-improving societal factors, such as the narrowing of

the gender gap in education. The decline of racism, sexism and other forms of oppression in the societies in which we live and work has not necessarily progressed linearly; waiting for this change is therefore once again both a displacement of institutional responsibility and a denial of social and political realities.

In addition to equality in visible leadership positions and access to opportunities, re-distribution and re-valorisation of roles is key. Individuals marginalised by racism, sexism, and other forms of discrimination tend to cluster in de-valorised roles, as part of a circular process: a combination of exclusion from the more valorised roles and the de-valorisation of roles which are female and/or minority-ethnic identified. Giving a voice to practice-based research and valorising the contributions artists make to the development of software and other technology are therefore steps towards envisioning a more inclusive field.

In terms of the challenges set out in this introductory text, our community is failing, and this edition also fails in several ways: we fall short of giving sufficient voice to contributions from the global South, to give just one example. We are all, in fact, constantly failing, and can only claim relative success in the push-back against dominant modes of discourse and societal hegemonies. But that doesn't mean we can't imagine the kind of work we would make in a better, less hierarchical, more

inclusive community. The practice-based research we are presenting here is, for the most part, hardly marginal, but by putting it together in one place, in a rare simultaneity of predominantly female authors, with significant contributions from under-represented identifications within the field and a modest attempt, at least, at geographical diversity, we can catch a glimpse of what the field could be. Themes such as embodiment, collaboration, and experimentation seem to consistently re-emerge, but perhaps it is best to let the contributions speak for themselves, and for you as reader to draw your own conclusions about the vision of computer-music research this edition proposes.

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